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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/724,323

11/26/2003

Daniel Collin Jenkins

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EXAMINER

DOAN, KIET M

ART UNIT

PAPER NUMBER

2683

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/724,323

Applicant(s)

JENKINS ET AL.

Examiner

Kiet Doan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-46 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 06 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

1. **Claims 1, 2 17-18 and 34** are rejected under 35 U.S.C. 102(e) as being anticipated by Syrjarinne et al. (Patent No. 6,748,202).

Consider **claim 1**, Syrjarinne teaches a network comprising: a first network node; and, a second network node to wirelessly communication wirelessly with said first network node, wherein said first network node securely transmits communication signals to said second network node using one or more spatial parameters unique to said second network node (C5, L46-54, C6, L31-40, Fig.1, Illustrate No.24 read on first network node, No.10 read on second network node which wirelessly communication through No.14).

Consider **claim 2, 18 and 34**, Syrjarinne teaches the network wherein said one or more spatial parameters include at least one of a position parameter and a velocity parameter (Abstract, C6, L31-40, teach network contain position/velocity).

Consider **claim 17**, Syrjarinne teaches a positioning device coupled to a network comprising: a receiver portion (Fig.1, No.26 teach receiver); a transmitter portion (Fig.1, No.25, teach transmitter); a processor coupled to the receiver portion and transmitter portion; and a memory coupled to the processor to store one or more instruction sequences (Fig.1, No.21, teach processor which contain memory), said instruction sequences to cause the positioning device to communicate wirelessly with a second positioning device by securely transmitting communication signals to said second positioning device using one or more spatial parameters unique to said second network node (Abstract, C4, L63-67, C5, L1-5, Fig.1, No.24, No.10 Illustrate transmitting communication signals using one or more spatial parameters).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**2. Claims 3-13, 14-16, 19-29, 30-33, 35-43, and 44-46,** are rejected under 35 U.S.C. 103(a) as being unpatentable over Syrjarinne et al. (Patent No. 6,748,202) in view of Kolmonen (Patent no. 6,308,081).

Consider **claims 3 and 19**, Syrjarinne teaches the limitation of claim as discuss above **but fail to teach** the network wherein said communication signals

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are decodable by said second network node only when said one or more spatial parameters match a corresponding spatial characteristic of said second network node.

In an analogous art, Kolmonen teaches "Transmission Method And Radio System". Further, Kolmonen teaches the network wherein said communication signals are decodable by said second network node only when said one or more spatial parameters match a corresponding spatial characteristic of said second network node (C3, L39-59, Fig.2, No.114 teach the signals are decode).

Therefore, it would have been obvious at the time that the invention was made that person having ordinary skill in the art to modify Syrjarinne and Kolmonen system, such that communication signals are decodable by said second network node, to provide means for security and confidential for the users.

Consider **claims 4 and 20**, Kolmonen teaches the network wherein said communication signals sent from said first network node to said second network node are encrypted using said one or more spatial parameters, and wherein said communication signals may be decrypted by said second network node using one or more corresponding spatial characteristics of said second network node (C3, L60-65).

Consider **claims 5, 21 and 35**, Syrjarinne teaches the network wherein a position, velocity, time (PVT) calculation is used to encrypt said communication

signals (C7, L15-38 teach the calculation of position, velocity, time (PVT)).

Consider **claims 6, 22 and 36**, Syrjarinne teaches the network wherein said PVT calculation is used to generate a new signal that can only be demodulated by a recipient node that is located in an intended position (Abstract, L9-15, C7, L15-38 teach the calculation said PVT which generate a new signal is inherent).

Consider **claims 7, 13, 23, 29, 37 and 43**, Syrjarinne teaches the network wherein said communication signals include non-position data (Fig.1, No.14 means as Non-position signal) and relative position information (Fig.1, No.15 means as position information)

Consider **claims 8, 24 and 38**, Syrjarinne teaches the network further comprising a master transmitter that sets the basic frequency and phase of said network and said first and second network nodes (C7, L3-14, Fig.1, No.25 Illustrate transmitter means as master transmitter said network node).

Consider **claims 9, 14, 25, 30, 39 and 44**, Syrjarinne teaches the network further comprising a plurality of navigation beacons which transmit position signals to said first and second network nodes, and wherein said first and second network nodes are position transponders (C5, L1-5, Fig.1, No.27 Illustrate

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beacon position system which transmit position signals, and No.21 determining position information).

Consider **claims 10, 26 and 40**, Syrjarinne teaches the network wherein said communication signals are synchronized to said position signals (Abstract, L1-3, C5, L5-15 teach communication signals are synchronized).

Consider **claims 11, 27 and 41**, Syrjarinne teaches the network wherein said communication signals are used as ranging signals for other network nodes, said other network nodes to determine signal propagation time using signal time tagging (C5, L29-40, Fig.1, No.19 teach timing register means as signal time tagging).

Consider **claims 12, 28 and 42**, Syrjarinne teaches the network wherein said position signals are usable for determining absolute positioning information for said first and second network nodes (Fig.1, No.15, No.21 teach GPS and Rx signals which inherently determining absolute positioning).

Consider **claims 15, 31 and 45**, Syrjarinne teaches the network wherein said communication signals are used to provide frequency and signal phase assistance in the determination of node position information (Fig.1, No.21 teach the GPS processor means as determination of node position information).

Consider **claims 16, 32 and 46**, Syrjarinne teaches the network wherein said frequency and signal phase assistance is used by said first network node to detect attenuated positioning signals from said plurality of navigation beacons (Fig.1, No.27, No.21 teach beacon positioning system and GPS which detect positioning signals by means of No.15).

Consider **claim 33**, Kolmonen teaches a method comprising: encoding communication signals using one or more spatial parameters unique to a second network node (C4, L40-61, Fig.2, No.122 teach coding means as encoding communication signals) and decoding said communication signals by said second network node when said one or more spatial parameters match a corresponding spatial characteristic of said second network node (C3, L50-59, C4, L4-20, Fig.2, No.114, teach decoding signals).

Syrjarinne teaches transmitting said communication signals from a first network node to the second network node, said first and second network nodes to comprise a wireless network; receiving said communication signals by said second network node (C5, L46-54, C6, L31-40, Fig.1, Illustrate No.24 read on first network node, No.10 read on second network node which wirelessly communication through No.14).

Therefore, it would have been obvious at the time that the invention was made that person having ordinary skill in the art to modify Syrjarinne and Kolmonen system, such that encoding/ decoding in communication signals, to provide means for security and confidential.



***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

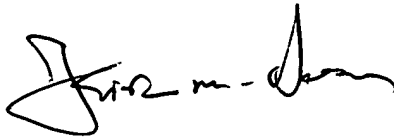
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|-------------------------|-----------------------|
| 1. O' Neill, Jr. et al. | US. 6,141,570         |
| 2. Kuwahara et al.      | US. 6,704,547         |
| 3. Wong et al.          | Pub. No. 2003/0153318 |
| 4. Cutler, Jr. et al.   | US. 5,678,184         |
| 5. Benjamin et al.      | Pub. No. 2003/0073406 |
| 6. Schafer et al.       | US. 6,597,668         |
| 7. Kuwanhara et al.     | Pub. No. 2002/0009974 |

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiet Doan whose telephone number is 703-305-4749. The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kiet Doan  
Patent Examiner



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